GEOGRAPHIC NEWS BULLETINS

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THE NATIONAL GEOGRAPHIC SOCIETY

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Photograph from Willard Price

BOLIVIA LOOKS SOUTH TO A NEW BOUNDARY

Landlocked Bolivia is the home of pre-Inca Indian tribes who retain many primitive customs. The Aymará (above) at La Paz is wearing "feathers in his cap" for a ceremonial dance. Bolivia was one of the countries to which 1938 brought new borders (Bulletin No. 2).

HOW TEACHERS MAY OBTAIN THE BULLETINS

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General Headquarters, Washington, D. C.

Old Trade Routes Figure in Battle for Barcelona

THE news early in January that Franco's troops had captured the small Spanish town of Artesa halted traffic a hundred miles away, because Artesa was key to a mountain gateway from France into Loyalist Spain.

Two mountain-climbing highways link the crossroads town of Artesa de Segre to an elaborate road and rail network on the French side of the Pyrenees. News reports describe a heavy traffic in supplies moving over routes that formerly brought vacationists to highland summer resorts and to isolated mountain valleys still quaint with remnants of feudalism.

In addition, Artesa's highways connect with Pyrenees bridle paths through keyhole gorges and hidden passes that have encouraged a lively smuggling traffic for centuries.

Arch Marks Trunk Highway of 2nd Century A.D.

Barcelona, on Spain's northeast coast, is the hub of a half-wheel of transport lines radiating through Catalonia and into France just a hundred miles to the north. Spoke after spoke has been broken off by Insurgent advances, progressing clockwise from the south.

Rebel troops in the Ebro valley chopped off, earlier in the war, the southern railroad trunkline to Zaragoza and Madrid, which follows the Ebro valley from Barcelona up to Zaragoza after skirting the seashore south to Tarragona. The fluted columns of an 1,800-year-old arch recall that this route was the *Via Maxima* when Spain was a mere colony under Roman Caesars.

The northern rail line from Barcelona to Zaragoza was severed later with the fall of Lerida, halfway between the two. Lerida's loss also put a "dead-end" sign on the main motor highway from Barcelona to Madrid. Of Artesa's road connections one winds down from the French frontier town of Fos, and the other descends southwestwardly from the independent State of Andorra.

What roads into Barcelona remain unblocked by the barricades of steel which Insurgents are extending around the present Loyalist capital? Three roads and three railroads in roughly parallel pairs trisect the mountainous northeast between Artesa and the Mediterranean coast. Two pairs make direct connections with the French border.

Gerona Besieged for Seven Months in 1809

Natural barriers of ranges with 9,000-foot peaks fortify the region. The small town of Berga on the westernmost of these three routes was the last stronghold in the country to surrender during the Carlist uprising a century ago. Gerona on the eastern route in 1809 defied besiegers for seven months; the small garrison was aided by the town's women, who enlisted themselves in a little squadron named for St. Barbara, patron saint of artillery warfare.

Crumbling watch towers, forts blocking mountain defiles, fortified churches dating from the Dark Ages, Roman ruins, chateaux surviving from the days of knights in armor mark today how desperately the French-Spanish balance of power once teetered up and down the mountain slopes now bearing traffic to and from Barcelona.

Charlemagne labored across the high passes of the Pyrenees to take Catalonia away from Spain in the 780's A.D. The region was twice again, in the 17th century, coupled to France by those same bands of road.

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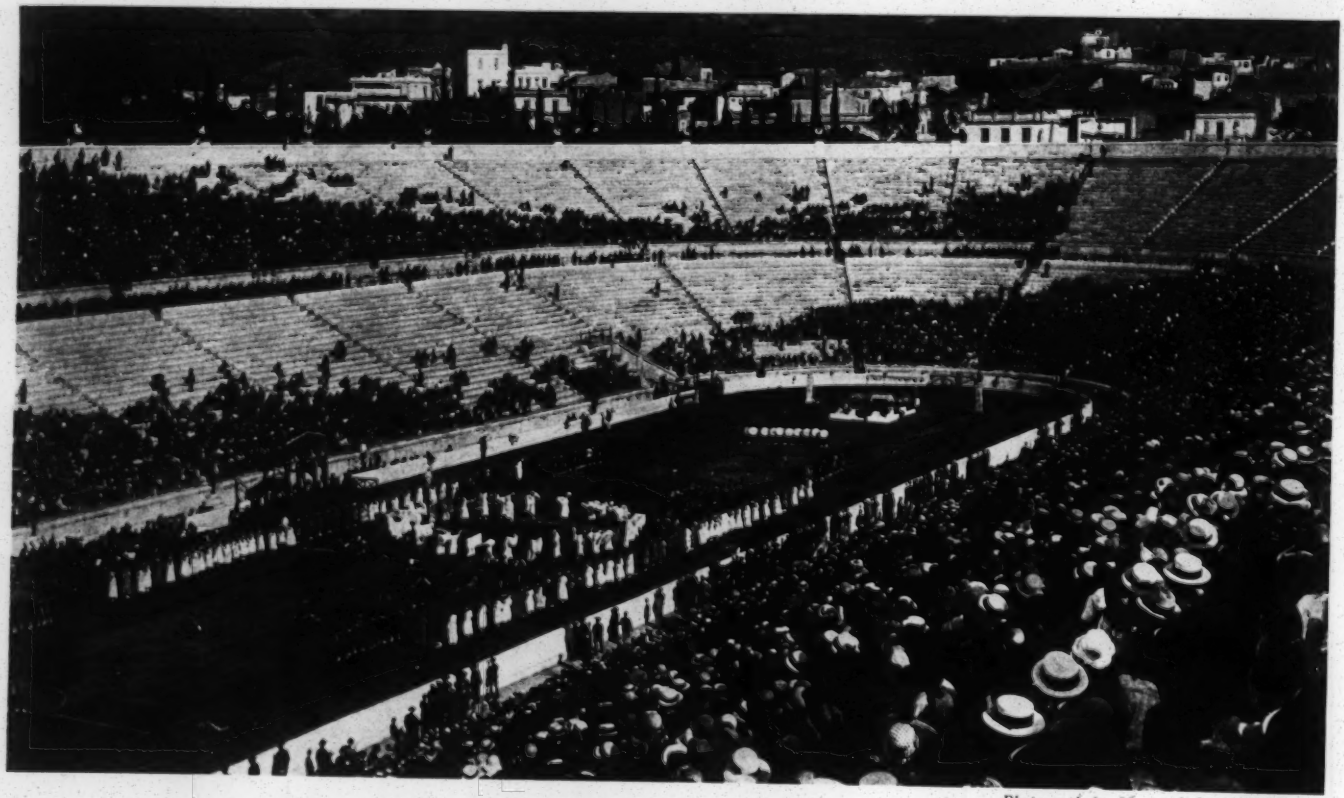

Photograph by Maynard Owen Williams

HISTORY REPEATS IN GREECE AFTER MAKING THE WORLD STADIUM-CONSCIOUS

After the Olympic games in 1896 offered athletes the same contests and honors open to Greeks of twenty centuries ago, the rows of stone benches of the original stadium of ancient Athens were again covered with marble. The two posts at the right end of the field are ancient stone *Hermae*, or turning posts to mark the race course. The pageant depicts a contest in which the followers of Orpheus (in white) subdue the Amazons (Bulletin No. 5).

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1938 Brought Most Sweeping Map Changes in Two Decades

DURING 1938, more sweeping changes in the map of the world were made than in any other year since the treaty-making that followed the World War.

Most spectacular of the year's changes were the dismemberment of Czecho-Slovakia —during which 16,650 square miles were broken off the country's outer rim and given to Germany, Hungary, and Poland—and the *Anschluss* that swept the last remnant of the old Austrian Empire into the new German Reich.

But the biggest change of all, measured in miles, was the peaceful reshaping of South America. By arbitration of the Chaco dispute, over which Bolivia and Paraguay had been at odds for almost a century, Paraguay was enlarged by about 92,000 square miles of the sparsely inhabited Chaco, a slice of territory well over twice as large as all the lands that changed hands in Europe.

Italian East Africa Replaces Ethiopia

Smaller revisions called for erasures and new labels on the rest of the map as well. The new Republic of Hatay appeared in western Asia. Africa, for the twenty-two nations recognizing Italian conquest during the year, lost the 659,000 square miles of the ancient Empire of Ethiopia within the broader boundaries of the young colony, Italian East Africa. Even the frozen expanse of Antarctica was not remote enough to escape boundary adjustment, as the United States and France demarcated their claims.

Changes during 1938 in Asia have showed up chiefly in the shifting of armies and capitals. The fall of Hankow made the western city of Chungking the new capital of China in fact as well as in name. Official activities were removed to the inland metropolis 1,500 miles up the Yangtze River, to which some of China's Government functions had already been transferred.

A brief but tense boundary dispute flared up between Russian and Japanese troops along the Manchukuo border southwest of Vladivostok. Both forces claimed the low hill of Changkufeng. After a truce, a map produced from Moscow archives showed the disputed hill lying within Russian territory.

Hatay Emerges among Levant States

In the Near East, simmering with unrest throughout the year, Hatay emerged as the name of a new autonomous unit among the Levant States, that lie between Turkey and Palestine on the northeastern coast of the Mediterranean. The first National Assembly in September declared it a "Republican State upheld by a Turkish majority and enjoying absolute independence in its internal affairs."

The new republic comprises the territory formerly known as the Sanjak of Alexandretta, extending over 100 miles along the Gulf of Alexandretta and including the important port of Alexandrette. The flag, a white crescent and star on a red ground, has been raised over the ancient city of Antioch, the new capital.

A sore spot inherited from pre-War Turkey was healed in March, by ratification of a treaty by which war-born Iraq and her neighbor to the east—formerly Persia, now Iran—agreed on their common frontier along the Shatt-al-Arab River. Almost half of this 123-mile stream, formed by the historic Tigris and Euphrates, is a boundary line for the two countries. Iraq claimed that the whole river lay within her borders; the treaty acknowledged the Shatt-al-Arab as boundary and gave navigation rights to Iran.

Finland-Soviet Border Defined

The frontier between Finland and the U.S.S.R., which slices the Scandinavian peninsula from north to south for some 700 miles, was clearly defined by an agreement between the two countries announced over the Soviet radio on December 26. On the same day the Supreme Soviet changed the name of Orenburg, city of 140,000 inhabitants on the Ural River, to Chkaloff, in honor of the late Russian aviator who made a non-stop flight in 1937 from Moscow over the North Pole to the United States.

Spain continued in 1938 divided between two contending forces. The Insurgents under General Franco control about three-fourths of the country, leaving only two Mediterranean regions and Madrid to the Loyalists.

A new capital appeared on the map of India—Cuttack Chowdwar, the site selected as administrative center for the new province of Orissa and its year-old government. It lies in the northeastern region of the Indian peninsula, southwest of Calcutta.

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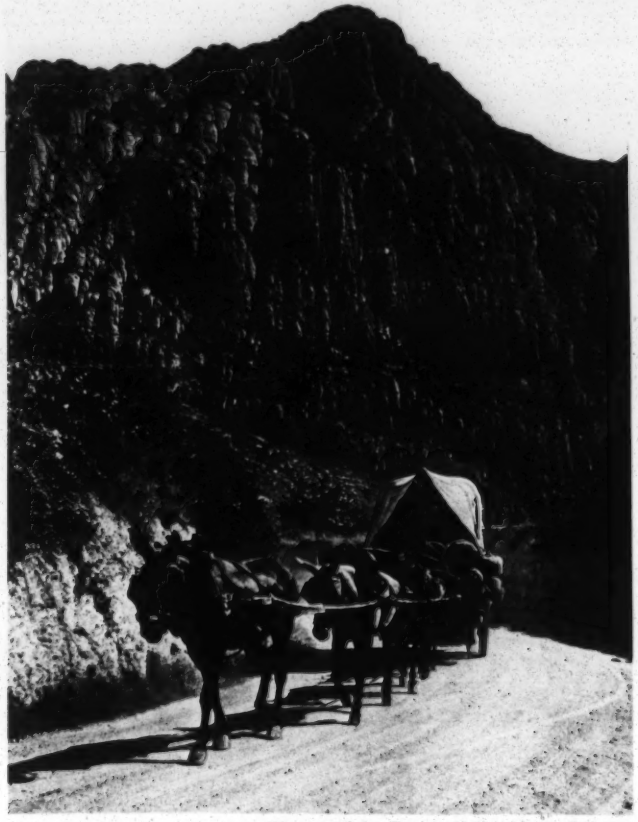
Busiest trade artery is the railroad from France that curves around the eastern end of the Pyrenees along the coast to cross the border into Spain at Port Bou. The central of the three routes by which traffic still moves into Barcelona crosses the crest of the Pyrenees, entering Spain over the international bridge between Puigcerda and Bourg-Madame. The third railroad is a small line running up the Llobregat valley, via Manresa, to the foot of the Sierra del Cadi.

Note: The border country between France and Spain is described in the following: "A Skyline Drive in the Pyrenees," *National Geographic Magazine*, October, 1937; "Turbulent Spain," October, 1936; "Montserrat, Spain's Mountain Shrine," January, 1933; "Andorra—Mountain Museum of Feudal Europe," October, 1933; "Barcelona, Pride of the Catalans," March, 1929; and "Looking Down on Europe," March, 1925.

See also in the GEOGRAPHIC NEWS BULLETINS: "The Ebro Valley—Hard-Fought Spanish Front," week of November 28, 1938; "Quaint Perpignan Now Seethes with Intrigue," week of February 21, 1938; and "Barcelona, State and National Capital," week of November 22, 1937.

Territory involved in the early January push of the Insurgent forces may be located on the map of Spain, published on pages 402-403 of the October, 1936, *Geographic*.



Photograph by Burton Holmes from Galloway

STREAMLINED TEAMS WORK BEST ON MOUNTAIN CURVES

Typical of the winding mountain roads of northeastern Spain is the highway from Barcelona to the mountain shrine of Montserrat. Cliffs and gorges hem them in, and steep slopes mark the Spanish side of the Pyrenees, which is more rugged than the French side. The three-mule-team pulls, single file, a two-wheeled cart resembling an American covered wagon cut in two.

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First Burma-Yunnan Highway Opens Another Back Door to China

WAR-RIMMED China unlatched a brand new "tradesman's entrance" with the recent opening of the first Burma-Yunnan highway. From Lashio, in easternmost British Burma, the road extends to Yunnanfu, capital of Yunnan Province, in the southwest corner of China.

As the crow flies, only about 400 miles separate Lashio and Yunnanfu, but no crow's course is this sinuous "Road from Mandalay" which wriggles over mile-high tablelands, clings to sheer mountain slopes, and twists through deep canyons.

In Yunnan, rugged mountains and rough-cut gorges discourage road-building. Rivers flow in valleys which are in places 2,000 feet deep, and cliff-walled canyons raise barriers to travel.

Only Half of Yunnan Is Really Chinese

Formerly through traffic between Burma and southern China scarcely existed. With no navigable river and few short stretches of motor roads, Yunnan's trade routes were narrow trails, indicated rather than improved by dislocated flagstones. Over ancient paths the first automobiles went piece by piece on men's backs to towns where they were assembled.

Almost as diverse as the countryside, Yunnan's population consists of Chinese immigrants and many primitive peoples.

These "barbarians," as the Chinese call them, form more than 200 tribes. They are simple and ignorant, but cheerful and kindly. As herdsmen, hunters, and farmers, the tribes live in the mountains. For the Chinese, the native tribesmen have an intense hatred; and since some districts have never been conquered, they continue as almost independent states.

China annexed Yunnan in the 13th century; and Chinese poured in to marry natives and affect their ways of life by Chinese culture. Today Yunnanese differ from other Chinese. Many remain in the highlands, reluctant to descend to the plains for even a single day. "High-living" Yunnanese believe that plains breed malaria.

In Yunnan Chinese authority exists only where there are troops. Rugged land slows up the spread of their influence. Also, frequent guerrilla warfare checks Chinese advances into outlying districts.

Opium Serves as Medium of Exchange

If a railroad had connected Peking's court with Yunnan's capital, travelers could have made the journey in about three days. The trip required four months by sedan chair and cart. Mandarin officials drawing the distant assignment could not be supervised; and many of them saw to their own personal profit at the expense of the helpless populace.

Remote as Yunnan is, however, no section outside North China speaks as good Peking Mandarin.

Staple food of all Yunnanese who can afford it is rice, the chief summer crop. Poorer mountain folk depend upon such grains as barley or millet, raised at the same season as rice. Because of Yunnan's southern position, crops are also grown in winter. They usually include opium poppy, wheat, and oil seeds.

Isolated by long distances and rough country, each farm forms a little world

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Canton and Enderbury Islands Acquire Joint Status

When volcanic disturbances nearly destroyed Rabaul, capital of the New Guinea Mandate on the island of New Britain, the Australian Government declared the city unsafe and designated as a new capital the growing port for inland gold fields, Salamau, on the mainland of New Guinea.

Canton and Enderbury Islands, of the Phoenix group in the mid-Pacific, may now be labeled both "Gr.Br." and "U.S." Although details have not been worked out, these two atolls, colonized and claimed as possible air bases by both governments, have been listed since March 3 as part of the territorial possessions of the United States; since August 10, they have been held jointly for use in common with Great Britain.

Another island change, this one in the China Sea, extended a loop of French boundary line around the Paracel Islands, 250 miles east of the coast of French Indo-China. French troops occupied the Paracels in July.

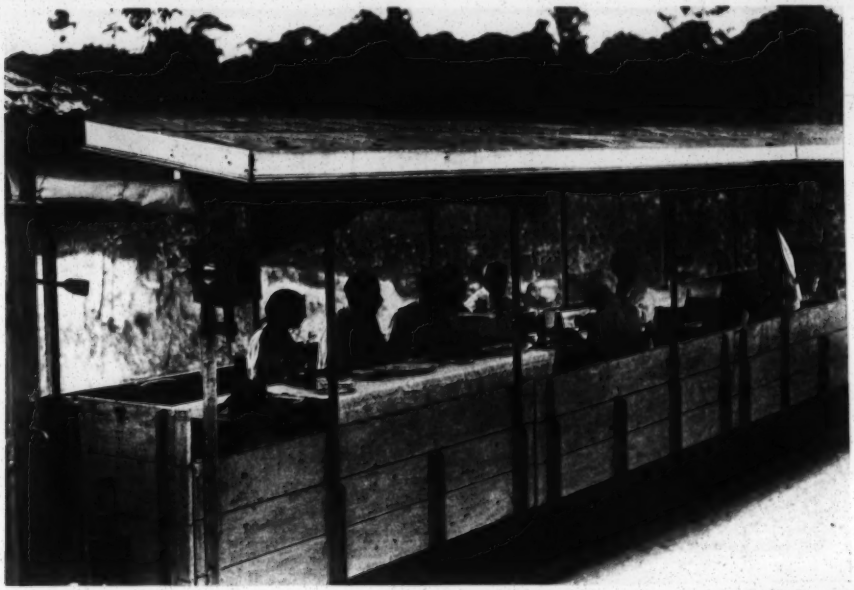
In South America, a 400-mile line was completed along the Serra Acarahy as boundary between Surinam (Netherlands Guiana), second smallest unit of South America (illustration, below) and Brazil, the largest.

New Name in Australia and New State Lines in U. S.

Australia replaced "Federal Capital Territory," for the district in which the capital city Canberra is located, with "Australian Capital Territory," to distinguish it further from Brazil's Federal District and Mexico's Distrito Federal. Stamp collectors will note the change in cancellations from the Australian capital, henceforth designated "Canberra, A.C.T." (Australian Capital Territory).

For the first time on any official map of the United States, three new State boundaries appeared on a chart completed in 1938 by the U. S. Geological Survey. They all delimit State lines extended over water. The upper right-hand corner of Illinois, washed by Lake Michigan, was squared off by extending the northern boundary to meet the eastern. The Michigan-Wisconsin boundary was drawn across the Green Bay region of Lake Michigan according to a Supreme Court decision. The State line between Michigan and Ohio crossing a portion of Lake Erie to the International Boundary was adjusted to extend from shore at an angle which gives Ohio jurisdiction over an added water area.

Bulletin No. 2, January 23, 1939.



Photograph by P. H. Dorsett

THE DINER IS THOROUGHLY "AIR-CONDITIONED" ON THE SURINAM EXPRESS

The wild interior of Surinam, through which a boundary survey was completed during 1938, is reached by a single narrow-gauge railway, on which passengers and comforts are equally scarce. Dr. David Fairchild (back to camera), exploring this South American colony of The Netherlands for useful plants, chartered a special train for members of his expedition; they traveled in a well-ventilated observation coach with its own "dining car ahead."

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Speed, Distance, and Altitude Records Fall in 1938

MANY new records for speed and distance, on land and water and through the air, were established during 1938.

One of the outstanding records of the year was made during the world-girdling flight of Howard Hughes, who, in July, set his airplane down at Roosevelt Field, New York, after a flight of 14,824 miles around the northern hemisphere, in 3 days, 19 hours and 17 minutes.

The non-stop distance record for airplanes fell when two bombers of the British Royal Air Force landed at Darwin, Australia, after a flight of 7,160 miles from Ismailia, Egypt. The former record was held by Soviet flyers who, in 1937, flew from Moscow, over the North Pole, to reach the United States and land in California—6,306 miles.

New Women's Long-Distance Air Record

The women's long-distance air record, once held by Amelia Earhart, was bettered in May when Mme. Andrée Dupeyron, French aviatrix, flew from Oran, Algeria, to a point near Basra, Iraq, 2,708 miles. The Earhart flight, made in 1932, was 2,448 miles from Los Angeles to Newark.

Speed records were whittled down further in 1938 for flights across the North American Continent. Lieut. Col. Robert Olds of the U. S. Army Air Corps broke the west-east speed record for military planes when he flew from Riverside, California, to Langley Field, Virginia, 2,285 miles, in 10 hours and 45 minutes—16 minutes under the previous record. In August, Major Alexander P. de Seversky lowered the record from New York to Los Angeles (east-west) by a flight in 10 hours and 3 minutes.

For mass flight, the United States Navy set a new record during the year. Eighteen planes took off at San Diego, California, in January, and after 20 hours and 12 minutes landed at Pearl Harbor, Hawaii. The flight cut three hours and 26 minutes from the then existing record for mass flight.

Italian Plane Reaches 56,016 Feet

Major Ernest Udet, German war ace, established a new speed record for military pursuit planes when he attained 394.94 miles an hour near Berlin; but Squadron Leader J. W. Gillon, a British pilot, eclipsed that record in a flight from Edinburgh to London at an average speed of 408.75 miles an hour.

An Italian pilot, Col. Mario Pezzi, climbed 56,016 feet at Guidonia, Italy, in October to better by 3,000 feet the airplane altitude record held by an Englishman. Japanese flyers made a record in sustained closed course flying when they flew 7,273 miles, remaining aloft more than 62 hours. H. F. Broadbent, Australian aviator, set up a new record for a solo flight between Australia and England, landing in the latter country 5 days, 5 hours and 22 minutes after leaving Darwin.

A non-stop record for Diesel-powered planes was made when two German Junker-type machines were catapulted from a steamship near the English coast and were flown 5,200 miles to Caravellas, Brazil.

Motorless planes (gliders) also broke records during the year. A new American glider altitude record was made by Richard C. du Pont of Wilmington who reached 6,806 feet above sea level at the famous soaring center on Harris Hill, Elmira, New York (illustration, next page).

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to itself. If crops fail, it is almost impossible to obtain aid or food from even the nearest farms. This means frequent famine.

Because of discouraging farming conditions, opium has gained a strong hold on the Yunnanese. Even in the capital city, Yunnanfu, many smoke the drug. Owing to its slight weight, opium "gets around" so easily that it has become, in some districts, a kind of money.

Yunnan Province has yielded enough copper in the last 1,000 years to supply most of the metal for coinage in all China.

Note: See also "Five Thousand Hours over China," *National Geographic Magazine*, May, 1938; "The Five Thousand Temples of Pagan," October, 1931; "With the Devil Dancers of China and Tibet" (color insert), July, 1931; "Working Teak in the Burma Forests," October, 1930; "The World's Greatest Overland Explorer," (Marco Polo), November, 1928; "Farmers Since the Days of Noah," April, 1927; "Through the Great River Trenches of Asia," August, 1926; "Experiences of a Lone Geographer," September, 1925; "The National Geographic Society's Yunnan Province Expedition," April, 1925; and "Banishing the Devil of Disease Among the Nashi," November, 1924.

Bulletin No. 3, January 23, 1939.

Photograph by A. W. Smith

A BLACKSMITH SETS UP SHOP IN BURMA'S BACKWOODS

The jungles of northeastern Burma are penetrated mainly for teak, and logging camps make use of elephant labor. A traveling blacksmith accompanies the camp, for such repairs as mending the *dah*, or curved knife for cutting through jungle underbrush. The furnace (lower right) burns charcoal. Air is pumped into it from two pipes of bamboo worked by plungers on the bicycle-pump principle.

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Modern "Football Bowls" Are Survivals from Ancient Stadia

RECORD-BREAKING crowds at January football games held in "bowls" of the South and Far West are nothing new in the realm of sports. The Greeks had a word for gathering places of thousands—"stadia"—and now comes a report that a stadium with a seating capacity of 8,000 has been found by archeologists of the Carnegie Institution in Mexico.

The Indian amphitheater, long buried in the jungles of southeastern Campeche, is believed to be a place where both religious and sports events were held. Here a solid rubber ball was bounced from the hips, elbows, and knees of the players, who attempted to get it through a ring fixed in a vertical position. A somewhat similar stadium has been found in the ancient Maya city of Copan, in Honduras, and smaller stadia have been discovered in Mexico and Guatemala.

The word "stadium" itself comes from a Greek term describing the race course in a meadow outside the ancient city of Olympia, a field exactly a "stade" in length. The name was eventually applied to any place in which races might be run before spectators.

Greek Sports Linked with Religion and Patriotism

The Greek stadia became magnificent affairs, presided over by coaches and equipped with hot and cold baths, rest rooms, and practice fields. The stadium at Olympia was decorated with lofty Doric columns and statues by leading sculptors of the day.

At Athens, however, were to be found the most famous stadia of ancient Greece. One of these, rising on the banks of the Ilissus River, was built under the direction of the orator and statesman Lycurgus about 330 B.C. Another built about 143 A.D. was the gift of a wealthy Roman resident of Athens. It was constructed of solid marble and held 44,000 spectators.

As Rome gained ascendancy over Greece, a gradual change occurred in the spirit of the ancient games, and prizes of money were sought instead of wreaths of wild olive. Aliens were allowed to enter the lists, and the old standards of training were slowly lost. Athletic events finally degenerated into bloodthirsty spectacles on a large scale.

Modern Football "Bowls" Like Rome's Colosseum

The names of numerous Roman stadia have come down to the present day. Ruins of the Circus Maximus, oldest and largest building of its kind in Rome, still stand between the Palatine and Aventine Hills. This stadium was constructed largely of wood. In it the crowds witnessed horse and chariot races, fighting with wild beasts, gladiatorial combats and other events. Most famous of all was the Colosseum, completed by Emperor Titus in 80 A.D. It was built on the elliptical or oval plan, copied in many modern football "bowls," and housed between 40,000 and 50,000 people (illustration, next page).

In the fourth century A.D., the Roman Emperor Theodosius halted athletic festivals by decree. The great stadiums, which a sports-minded people of earlier days had erected, fell victims to barbarian invaders who used many of them as "quarries," and later earthquakes finished the destruction begun by man.

For fourteen hundred years, the sports which helped to foster the civilizations of the Mediterranean were forgotten. Then, in 1896, on the ruins of an old Greek

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This, however, falls far short of the world's record made also in 1938 by Captain Walther Dreschsel, a German pilot who soared to an altitude of 21,939 feet over Germany.

The "Queen Mary" sailed into New York Harbor on August 8, to take the east-west Atlantic crossing record from the French liner "Normandie." Speeding at the rate of 790 miles in 24 hours for a part of the voyage, the ship crossed in 3 days, 21 hours and 48 minutes. On her return trip to England, the liner broke the west-east record, making the run in one hour less than the time consumed in the east-west voyage.

Three Auto Records within Three Weeks

Sir Malcolm Campbell, British automobile racer, established a new water speed record on September 17. On Lake Hallwil, Switzerland, he drove his motorboat at an average speed of nearly 131 miles an hour, breaking his own former record of 129½ miles an hour.

The Bonneville Salt Flats, Utah, again were the scene of record-shattering automobile runs. On August 27, Captain George Eyston of England drove his streamlined automobile at the record speed of 345.49 miles an hour. Nineteen days later John Cobb, also of England, broke the Eyston record with a speed of 350 miles an hour.

The next day, however, Eyston hurled his "Thunderbolt" over the flats at 357.5 miles an hour.

Photograph by Hans Groenhoff

A MODERN GLIDER LOOKS LIKE A MINIATURE TRANSPORT PLANE

Here Richard C. du Pont, who set a new American glider altitude record in 1938, is being "fitted" into the cockpit of his sailplane at Elmira, New York. There is barely room for the flyer and his parachute. One helper is putting the cockpit cover in place and the other is attaching the towrope to a hook under the ship's bullet nose. The towrope extends to a motor-operated drum which rapidly winds in the line and pulls the sailplane into the air. Once aloft, the pilot detaches the rope and the frail craft is off on the wings of the wind.

amphitheater, a new stadium rose on the hills outside Athens. It was made possible by gifts from a wealthy Greek merchant and symbolized the success of a plan which Baron Pierre de Coubertin of France had been advocating for years. Reviving the ancient "Olympic" games on a world-wide basis, he said, would bring about international understanding as well as educational benefits.

Some Designed for One Sport Only

"Bowls" are the modern successors to the sport stadia of the ancient world. Of these, the most picturesquely named are the Rose Bowl at Pasadena, California, the Orange Bowl at Miami, Florida, the Sugar Bowl at New Orleans, Louisiana, the Cotton Bowl at Dallas, Texas, the Sun Bowl at El Paso, Texas, and the Dixie Bowl at Atlanta, Georgia.

Since 1916, college and municipal stadiums have sprung up all over the United States. Some of these, like the Yale Bowl, are designed for one sport only, while others provide for football, track, and field events and other games. In construction, many of them owe more to the larger Roman circuses or amphitheaters than to their namesakes, the first Greek stadia. Designs vary, some being rectangular, some U-shaped, while others describe the ellipse or long oval.

Note: Photographs of ancient stadia can be found in "Augustus—Emperor and Architect," *National Geographic Magazine*, October, 1938; "Imperial Rome Reborn," March, 1937; "Horace—Classic Poet of the Countryside," December, 1935; "New Greece, the Centenarian, Forges Ahead," December, 1930; "The Glory That Was Greece," December, 1922; and "The Splendor of Rome," June, 1922.

Bulletin No. 5, January 23, 1939.

Photograph from Wide World

ANCIENT ROME WAS DOTTED WITH STADIA OR CIRCUSES

This scale model of the Immortal City as it appeared during the "Golden Age of Augustus" shows three important amphitheaters. Left center is the Circus of Flaminius; at the extreme upper left can be seen part of the Colosseum; and upper right, the huge Circus Maximus. Augustus, under whom the Roman Empire rose to the peak of its power and splendor, claimed he found Rome a city of brick and left it a city of marble.

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